

Patent Claims

1. A torque transmission device, in particular for a motor vehicle, having a fluid coupling, such as a Föttinger coupling, or a torque converter, having at least one impeller that is connectable in a torsionally fixed manner to a drive shaft of a drive unit, at least one turbine that is connectable in a torsionally fixed manner to the input shaft of a drive train to be driven, as well as, optionally, at least one stator mounted between the impeller and turbine, at least one housing that accommodates the impeller and the turbine, as well as a converter lockup clutch, which is able to lock together the impeller and turbine in a torsionally fixed manner,

wherein the torque transmission device includes a flange that is connected by force-locking to the housing or the impeller, that is mounted between the impeller and the turbine, and that is connectable in a frictionally engaged manner by a first coupling to the turbine.

2. The torque transmission device as recited in the preceding claim,
wherein the flange is mounted on a torsional vibration damper that is coupled to the housing.

3. The torque transmission device as recited in the preceding claim,
wherein it includes a third switchable coupling, which can be used to uncouple the impeller from the input shaft, given a disengaged third coupling, the impeller being able to rotate relative to the input shaft.

4. The torque transmission device as recited in the preceding claim,
wherein it includes a second switchable coupling which enables the impeller to be locked together with the flange in a torsionally fixed manner.

5. The torque transmission device as recited in the preceding claim,
wherein the third switchable coupling acts between the impeller and the housing.

6. The torque transmission device as recited in one of the preceding claims,
wherein the flange is able to be optionally coupled to the impeller and/or the turbine in a torsionally fixed manner.

7. The torque transmission device as recited in one of the preceding claims,

wherein the torsional vibration damper is accommodated within the housing.

8. The torque transmission device as recited in one of the preceding claims, wherein the impeller and/or the turbine are axially displaceable within the housing.

9. The torque transmission device as recited in one of the preceding claims, wherein the first and/or second and/or third coupling are friction clutches.

10. The torque transmission device as recited in one of the preceding claims, wherein the friction clutches include friction linings.

11. The torque transmission device as recited in one of the preceding claims, wherein the first and/or second and/or third coupling may be disengaged and engaged by axial displacement of the impeller and/or of the turbine.

12. The torque transmission device as recited in one of the preceding claims, wherein the axial displacement of the turbine takes place hydraulically.

13. The torque transmission device as recited in one of the preceding claims, wherein the axial displacement of the impeller takes place hydraulically.

14. The torque transmission device as recited in one of the preceding claims, wherein it has a first pressure channel and a second pressure channel.

15. The torque transmission device as recited in one of the preceding claims, wherein the first, second and third coupling are disengaged when the first and second pressure channel are at approximately the same pressure.

16. The torque transmission device as recited in one of the preceding claims, wherein the third coupling is engaged, and the first and second coupling are disengaged when the pressure prevailing in the first pressure channel is higher than the pressure prevailing in the second pressure channel.

17. The torque transmission device as recited in one of the preceding claims,

wherein the third coupling is disengaged, and the first and second coupling are engaged when the pressure prevailing in the second pressure channel is higher than the pressure prevailing in the first pressure channel.

18. The torque transmission device as recited in one of the preceding claims, characterized by one feature disclosed in the application documents.